PPAI Terms of Reference

- **Review, prioritize, and coordinate U.S. plans to characterize predictability, and demonstrate improved prediction capabilities, on sub-seasonal, seasonal, S-I, decadal, and century and longer time scales as necessary to achieve the goals of CLIVAR.**

- **Interface with agency and CCSP activities and groups (e.g. NOAA-NMFS, IRI, and RISAs; NASA-RESACs, RACs, and ESIPs) to identify user requirements for useful climate information, improve the communication of these requirements, and encourage development of appropriate tools and approaches for improved decision support capabilities.**

- **Coordinate U.S. efforts to insure advances in prediction research have appropriate connections and pathways into operational forecast system development.**

- **…**

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Cross-cutting Strategies Intersection with Goals

PPAI Panel

Cross-cutting Strategies **Goals**	*Sustained and new observations*	*Process studies*	*Model development strategies*	*Quantifying improvement in predictions and projections*	*Communication of climate information*
Understand the role of the oceans in climate variability on different timescales	Document variations	Collect & provide data to evaluate and improve models	Improve climate models across processes and timescales	Understand limits of climate predictability	Prioritize observing network and predictability studies
Understand the processes that contribute to climate change and variability in the past, present and future	Document climate-critical processes	Investigate processes to help explain variations	Property conserving climate reanalyses	Quantify importance of model uncertainty in projections	Set priorities for observations and predictability studies
Better quantify uncertainties in the simulations and projections of climate	Evaluate model simulations	Validate model representation of relevant observed processes	Improve models	Quantify model, structural and scenario errors	Address needs for predictability and sensitivity studies
Improve the development and evaluation of climate simulations	Evaluate climate models	Provide data to develop and test model process representation	Reduce biases in climate models	Quantify importance of model physics errors	Determine key targets for model development
Collaborate with research communities that develop and use climate information	Provide multi-disciplinary datasets	Provide process understanding and opportunity for collaboration across disciplines	Strengthen communication between observational and model communities	Improve communication across disciplinary boundaries	Provide information on dominant climate phenomena and predictability

Panel discussions should consider cross-cutting activities to address goals.

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Session 2: Communication and Decision Support

Panel feedback on and consideration of action items for:

- **The aim of all four discussions is to identify and prioritize strategies that aid in the development of appropriate "Communication of Climate Research" (CCS5).**
- **The main goals of these strategies are the following**
  - **Better quantify uncertainty in the predictions and projections of climate processes, patterns and parameters to which social, natural, and/or economic system are most sensitive (CSP Goal 3)**
  - **Identify, evaluate and develop improved climate-prediction metrics for applications-based use (CSP Goal 4)**
  - **Collaborate with research and operational communities that develop climate and use climate model information to: i) raise awareness and understanding of vulnerability and sensitivity of human systems to climate variability and change;**
  - **and ii) to improve dissemination and adoption of climate predictions and accompanying uncertainties (CSP Goal 5)**

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Session 2: Communication and Decision Support

- **2:00 – 2:30 pm: Status of NMME (Jin Huang)**
- **2:30 – 2:00 pm: Role of CLIVAR Science and Decision making (Lisa Goddard)**
- **3:00-3:30pm: Coffee Break**
- **3:30 – 4:00 pm: Role of CLIVAR Science and Service (Robin O'Malley– USGS)**
- **4:00-5:00 pm: Applications Process Teams (APTs) – Are they the right tool for improved decision support capabilities? (Gregg Garfin)**

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Implementation Approaches

Panel and cross-panel feedback on and consideration of action items for:

- **Working Groups**
  - New WGs starting in 2015; no new WGs in 2014
- **Science Teams**
  - Additional Science Team recommendations for IAG consideration?
- **Climate Process Teams**
  - New CPTs possibly to be solicited in 2014
- **Science Meetings/Workshops**
  - IAG consideration in May & December
- **Agency-supported Research Calls** to implement coordinated observation and data projects; field campaign and process research; modeling, prediction and applications projects
- Opportunities for **Students, Postdocs, and Early-career Scientists**
  - Ideas to expand engagement

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